

WB169-SI2-V



USAGE

The pulse sensor is designed to read data from power meters with pulse outputs (water meters, electricity meters, gas meters) or binary sensors (door contacts, flood sensors) and for radio transmission of the sensed data using 169 MHz Wireless M-Bus radio technology.

UNIT DESCRIPTION

The sensor is equipped with two inputs for reading measurement pulses from connected power meters, or for monitoring the status of binary sensors. Continuous consumption states are periodically stored and in set regular intervals and sent to the central data acquisition system via a communication gateway. Changes in the status of the binary sensors are fed into the to the central system immediately. Wireless data transmission is implemented in the 169 MHz radio band of the wM-Bus transmission technology.

TECHNICAL PARAMETERS

Wireless interface

- Frequency Band: 169,400 - 169,475 MHz
- Wireless Technology: Wireless M-Bus
- Protocols: wM-Bus
- Modulation: 2-GFSK, 4-GFSK
- Channel Width: 12.5 or 50 kHz
- Transmission Power: 500 mW

- Receiver Sensitivity: - 109 dBm
- Data Rate: 2,4 - 19,2 kBd
- Output Impedance: 50 Ω
- Antenna: external, SMA-female connector

Bluetooth Specifications

- Bluetooth Version: BLE 5.2
- Bluetooth Frequency: 2.4 GHz
- Bluetooth Data Rate: 1 Mbps
- Bluetooth Maximum Power: 8 dBm

Power

- Battery: Li-SOCI2
- Battery Capacity: 13 Ah
- Battery Life: 5 years

Physical Properties

- Length: 145 mm
- Width: 45 mm
- Height: 100 mm
- Weight: 300 g

Operating Conditions

- Operating Temperatures: (-20 to +50) °C
- Storage Temperatures: (0 to +40) °C
- Relative Humidity: 90% (non-condensing)
- IP Rating: IP65 or IP68

Pulse input

- Open Switch Resistance: greater than 5 M Ω
- Closed Switch Resistance: less than 10 k Ω
- Max Voltage in Closed State: 0,25 V
- Max Input Pulse Frequency: 300 Hz
- Min Pulse Length: 1 ms

UART configuration

- UART Data Rate: 9.6 kbps
- Transmission method: Asynchronous
- UART parameters: 8 data bits, 1 stop bit, no parity
- Voltage Level: 3.6 V (CMOS)

Certification

- ATEX: optional II 3G Ex ic IIA T4 Gc